Cotton/Soybean Insect Newsletter

Volume 7, Issue #9 **Edisto Research & Education Center in Blackville, SC** **19 July 2012**

Pest Patrol Hotline

The information contained herein each week is available via a toll-free hotline. I will update the short message weekly for at least as long as the newsletter runs. Call the free number **(877) 285-8525** and select the messages you would like to hear. Select #1 for updates from the Southern Region. Select #3 for the Southeast, and then select #1 to hear my message. Text alerts are also available. The hotline is sponsored by Syngenta.

News from Above the Lakes

No news to report this week.

News from Below the Lakes

Marion Barnes, county agent in Colleton County, reported that he is getting calls about kudzu bugs and caterpillar defoliation damage (green cloverworms) in soybeans.

News from the Piedmont/Upstate

No news to report this week.

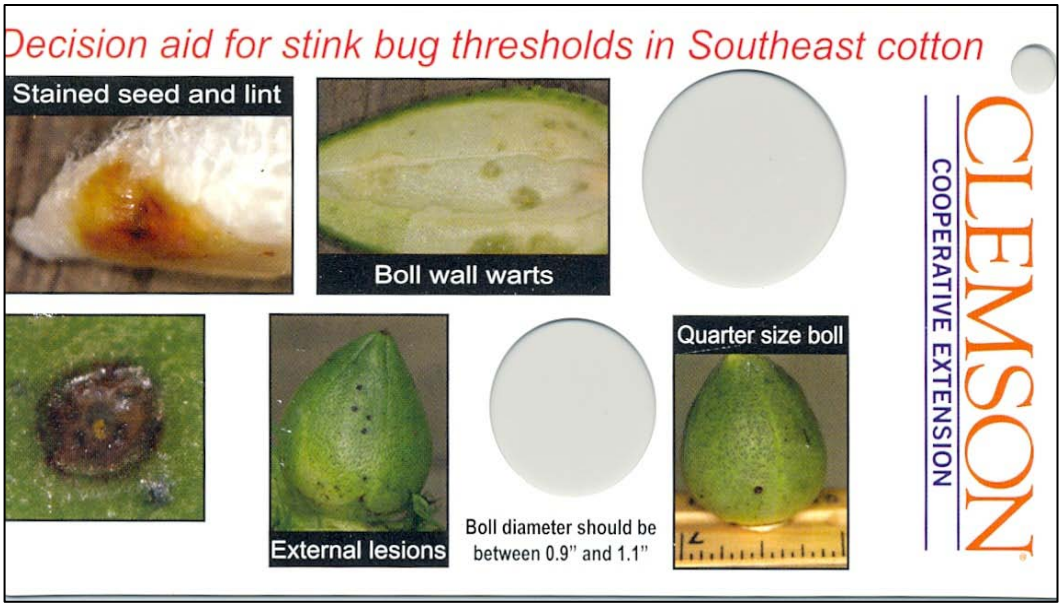
Cotton Situation

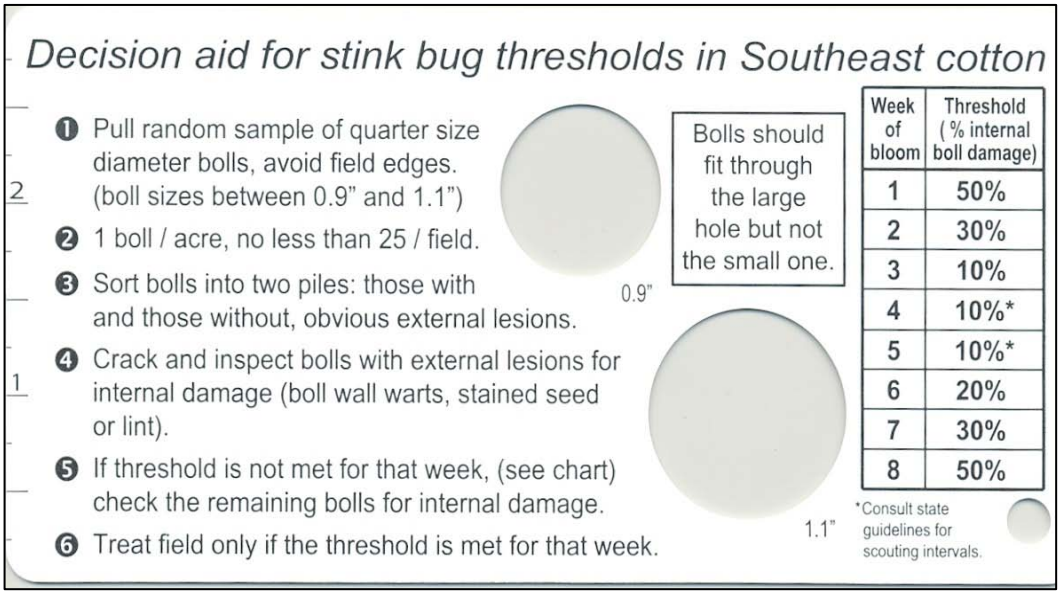
As of 16 July 2012, the USDA NASS South Carolina Statistical Office had the cotton crop at about 80% squaring, ahead of where we were last year at 74%, and the 5-yr average of 72%. The crop has set bolls on about 20% of our acres, compared with 39% last year and 20% for the 5-yr average. Conditions of the cotton crop are described as 8% excellent, 55% good, 35% fair, 2% poor, and 0% very poor. Soil moisture levels in the state have improved from the previous week and were described as 8% very short, 30% short, and 60% adequate, and 2% surplus. These are observed/perceived state-wide averages.

Managing Stink Bugs in Cotton

Much of the cotton in the state is either in or very close to the most susceptible period for stink bugs. It is time to closely check cotton for stink bugs. Cotton in the 3rd, 4th, or 5th week of bloom is particularly susceptible to injury and yield loss from stink bugs. I still have plenty of field cards with lanyards (pictured at right and below) that summarize our recommendations for examining bolls for stink bug injury and determining when to treat.

Treat when medium-sized bolls display symptoms of feeding injury exceeding threshold and stink bugs are present. Begin scouting for stink bugs when small bolls appear. Consider using a more aggressive (i.e. 10%) threshold during weeks 3-5 of bloom, as bolls developing during this growth stage are particularly susceptible. Randomly select at least 25 bolls (at least a quarter [1 inch] in diameter) per field

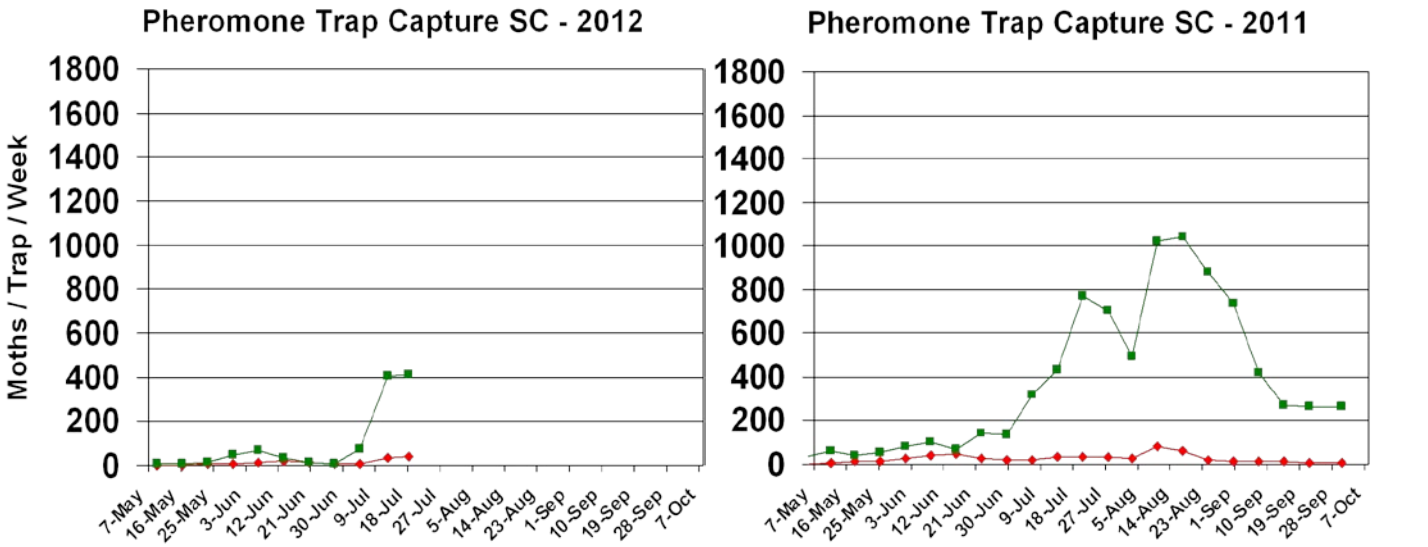




(add 1 additional boll for each acre exceeding 25 acres). Break each boll open and examine the carpal walls, lint, and seeds for injury symptoms. Look for the presence of warty growths on the carpal walls and for discolored seed and lint. To ensure the accuracy of this sampling method, do not deviate from weekly checking of quarter-sized bolls. One may also rate an infestation based upon numbers of stink bugs by using a beat cloth or beat pan. When this method is used, an insecticide treatment will be warranted for 1 or more stink bugs per 6 feet of row. A 3-foot beat cloth may be used to scout for stink bugs. Carefully approach and shake the plants on at least 30 feet of row (10, 3-foot samples). Pyrethroids applied for bollworm control will generally provide control of stink bugs as well. Bidrin or methyl parathion should be used in fields with infestations predominated by brown stink bugs. Be especially vigilant for stink bugs in both *Bt* cotton and non-*Bt* cotton fields when no treatments are being applied for caterpillars. For insecticide rates and product recommendations, consult http://www.clemson.edu/extension/rowcrops/pest/index.html.

Bollworm & Tobacco Budworm

Captures of bollworm (BW) and tobacco budworm (TBW) moths in pheromone traps at EREC this season are shown below, as are the captures from 2011 for reference. Bollworm captures are still increasing slightly from last week. Tobacco budworm continues to be important for our soybean acres and for a very limited number of non-Bt-cotton acres. I provide these data as a measure of moth activity in our local area where I use these data as an indication of moth presence and activity near my research plots. The numbers are not necessarily representative of the species throughout the state.



Soybean Situation

As of 16 July 2012, the USDA NASS South Carolina Statistical Office had our progress at 100% of soybeans as emerged, ahead of where we were last year at 91% and the 5-yr average of 96%. Conditions of the soybean crop are described as 4% excellent, 46% good, 39% fair, 10% poor, and 1% very poor. These are observed/perceived state-wide averages.

Identification of Caterpillars in Soybeans

I am starting to see some pretty big populations of green cloverworm in soybeans. Some of the defoliation seems to be more intense than usual for that species. Some reports of soybean looper are coming out of GA, but I have not noticed many of that species yet. Remember, it is extremely important to be able to readily identify species of caterpillars. Choice of insecticide will depend upon what species of caterpillars are present, along with other species in the field that are also economic problems. Some insecticides will not work on some species. Here is a refresher on how to identify the common species of caterpillar pests in soybean (adults are shown also – look for these as you walk fields and "flush" moths). The key is to look for and count the pairs of abdominal prolegs (the fleshy appearing "legs" in the abdomen region. Pyrethroids will work fine for corn earworm, velvetbean caterpillar, and green cloverworms, but you will need to use another type of insecticide

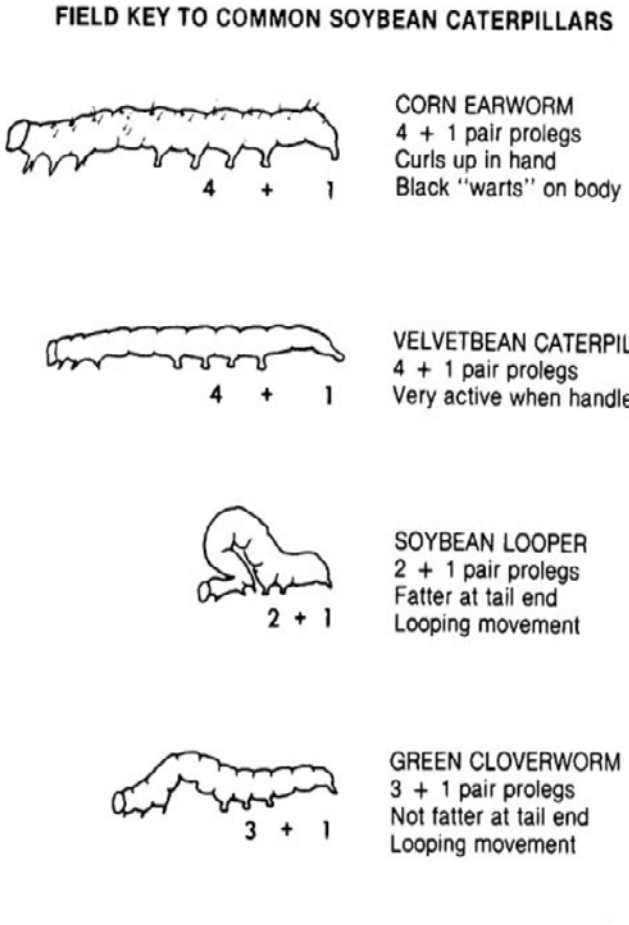
(Steward, Tracer, Intrepid, Belt, etc.) for soybean looper. See rates in handbook (pg. 240): http://www.clemson.edu/extension/rowcrops/pest/index.html.

Corn earworm

Velvetbean caterpillar

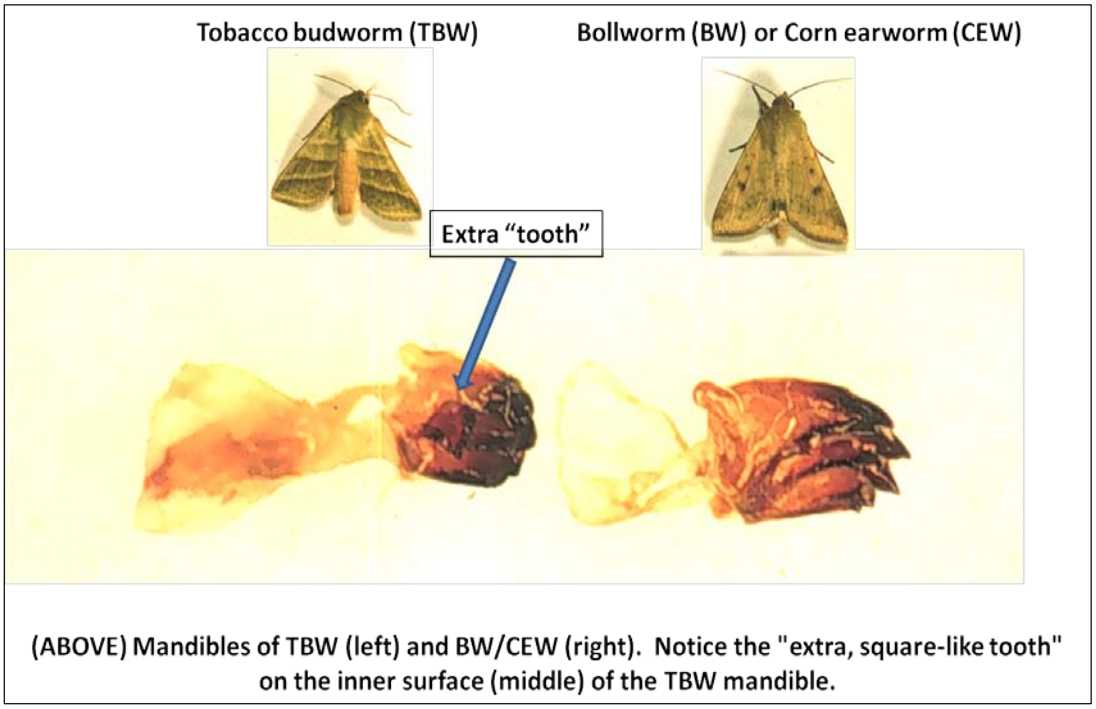
Soybean looper

Green cloverworm



Furthermore, tobacco budworms (TBW) look like corn earworms (CEW) as larvae, and, because there is no Bt toxin in our soybeans to take out TBW, that species can become numerous in the crop – TBW is harder to control than CEW. One of the ways to tell those two species apart in the larval stage is by examination of a mandible. Mandibles of TBW have an extra "tooth" in the middle of the mandible (appearing much like the thumb portion of a baseball glove). Medium-to-large caterpillars can be easily identified with this method using a hand lens or a dissecting microscope. Steward, Tracer, Belt, etc, among other insecticides, would be products for TBW. See the pictures below.

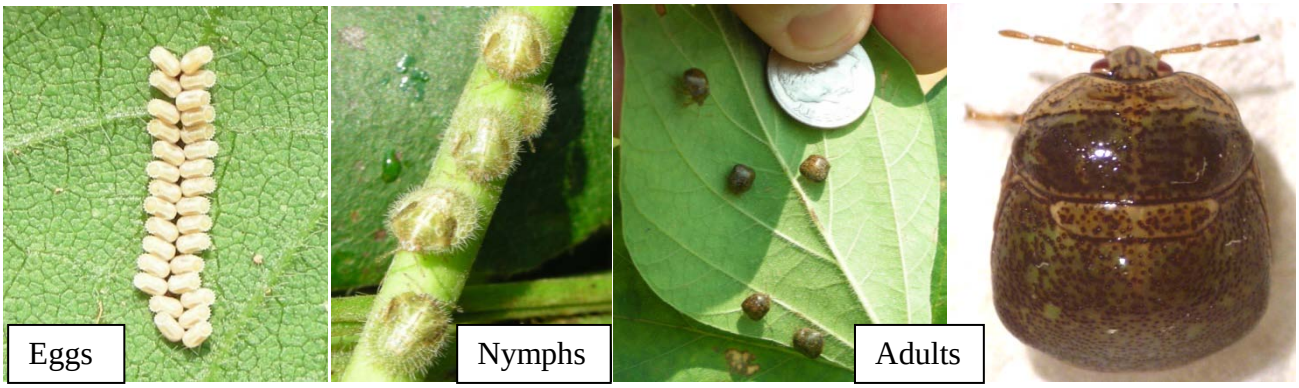
TBW or BW?



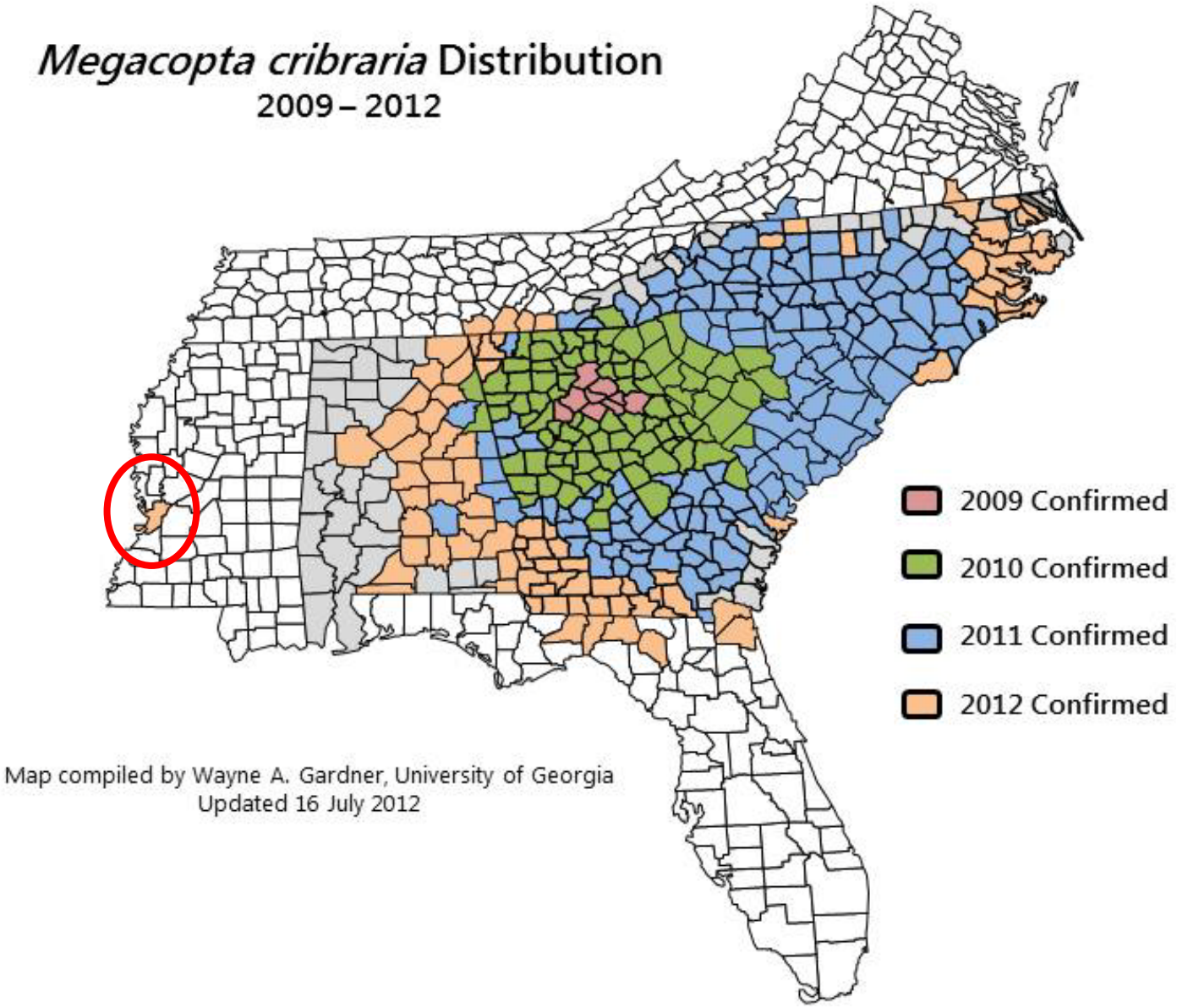
(ABOVE) Mandibles of TBW (left) and BW/CEW (right). Notice the "extra, square-like tooth" on the inner surface (middle) of the TBW mandible.

Kudzu Bug/Bean Plataspid

Populations of kudzu bugs should dramatically increase in soybeans fields shortly. Most of first generation kudzu bugs are about to molt from the last immature stage into adults. When that occurs, we should see big increases in soybeans as they move out of kudzu and early-season soybeans into our later crop. Treatment thresholds are still being developed, but we are pretty sure that the immatures must not be left to complete development on soybeans. We are recommending that insecticides target the nymphs when they are "easy" to find and "numerous" on petioles and main stems at most random spots in the field. Initial infestations can build along field borders, so border applications of fields might provide good suppression for the first application.



Here is the latest map of the distribution of the kudzu bug, *Megacopta cribraria*, in the Southeast. Many thanks to Dr. Wayne Gardner (UGA) for updating and supplying this map regularly. There are 8 **states** now reporting this invasive species. In order of appearance of the pest: Georgia, South Carolina, North Carolina, Alabama, Virginia, Florida, Tennessee, and Mississippi. Yes, the species has been detected in Mississippi! South Carolina remains the only state to be completely infested with this species.



A 12-minute presentation on the kudzu bug is open access until 31 October at the link below. A shorter presentation is open access permanently courtesy of the United Soybean Board. View these at: http://www.plantmanagementnetwork.org/edcenter/seminars/soybean/kudzu.

Our recommendations for managing kudzu bugs in soybeans that were put together during the winter months based on our experiences last year can be found at:
http://www.clemson.edu/extension/kudzubugs/pdfs/kudzu_bug_insecticide_soybeans.pdf

Visit our kudzu bug webpage for the latest information on this invasive pest:
http://www.clemson.edu/extension/kudzubugs/index.html

Pest Management Handbook - 2012

Insect control recommendations are available online in the 2012 South Carolina Pest Management Handbook at:
http://www.clemson.edu/extension/rowcrops/pest/index.html

Need More Information?

For more Extension information: http://www.clemson.edu/extension/

For historical cotton/soybean insect newsletters:
http://www.clemson.edu/extension/rowcrops/cotton/pest_management/newsletters/index.html

Sincerely,

Jeremy K. Greene, Ph.D.
Professor – Entomologist

Visit our website at:
http://www.clemson.edu